Health Disparities between Rural and Urban Women in Minnesota

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With much discussion about health disparities in Minnesota in recent years, there has been growing awareness about the inequities between rich and poor and between majority and minority groups. Attention also needs to be paid to the disparities between women who live in rural areas and those who live in urban parts of the state. Rural women are poorer, older and less likely to have adequate health insurance than their urban counterparts, which can compromise their health status. They also fare worse on a number of health indicators and face barriers to adequate health care that can exacerbate disparities. This article describes the root causes of health disparities between women living in rural and urban parts of the state and explores strategies to mitigate them that include increasing the rural physician workforce, improving access to primary and specialty care through telehealth services, and expanding health insurance options.

In the United States, women face poorer health outcomes and have a greater incidence of illness than men. Heart disease and stroke, for example, are responsible for a greater percentage of deaths in women than men. In addition, women are more likely than men to suffer the physical and emotional limitations of chronic disease. Disparities also exist between women in rural* and urban areas. Contributing to those disparities are the facts that women living in rural areas have access to fewer health care providers and have higher levels of poverty than women in urban areas. Women in rural areas also have less education, more transportation challenges and lower levels of adequate health insurance coverage than women living in urban areas. Poor health in women affects more than just individuals. It often translates into poor health for families, as women are frequently the ones who are responsible for making sure their family members receive needed care. This article examines some of the reasons why women living in rural parts of Minnesota have poorer health indicators than women in urban parts of the state and offers suggestions for eliminating health disparities between these two groups.

Women in Rural Minnesota

Demographics

According to Women’s Health USA 2013, 16.7% of all women in the United States reside in rural areas. The mean age of women living in rural parts of the country is 50 years compared with 46 years for those living in urban areas. In Minnesota, 18% of women in rural areas are age 65 and older, compared with 12% of women in urban areas. In addition, women living in rural Minnesota are less ethnically diverse than women living in the state’s urban communities.

Women in rural areas also are less affluent than their urban counterparts. Women’s Health 2013 found 18% of women in rural parts of the United States live below the poverty threshold compared with 15% of women in urban areas. In Minnesota, the household poverty rate for women over age 18 is 9.7%, while the poverty rate for males over 18 is just 7.1%. Twelve percent of women in rural Minnesota live below the poverty line, while only 10% of women in the state’s urban areas do so.

In addition, 33% of rural women in the state live below 200% of the poverty line compared with 22% of urban Minnesota women.

Men and women in rural Minnesota are also less likely to have at least some college education than those living in metro areas (just over 50% in rural regions compared with 67% statewide). Although rural women have similar high school graduation rates to those of their urban counterparts, they have lower college graduation rates. In 2006, the high school graduation rates for rural and urban Minnesota women were 94.3% and 94.9%, respectively, while their respective college graduation rates were 25% and 40%.

Health indicators

Women living in rural areas fare worse than those in urban areas on a number of health indicators. The greatest differences
can be seen in terms of cervical cancer, sexually transmitted infections and teen pregnancy. Cervical cancer is quite rare in Minnesota, but rural women have a 30% higher risk of being diagnosed with invasive disease than urban women. Sexually transmitted infections (STIs) are increasingly diagnosed among women in rural Minnesota. Although STI rates are higher in metro areas, the rate of increase has been higher in rural areas. For example, the rates of chlamydia and gonorrhea among women in rural parts of the state increased 10% and 14%, respectively, in 2008. Rural areas experience higher-than-average teen pregnancy rates. In 2010, the teen birth rate in rural counties in the United States was nearly one-third higher than in the rest of the country (43 versus 33 births per 1,000 females 15 to 19 years of age). In Minnesota, 43 counties have teen birth rates higher than the state average of 16.8 live births per 1,000 females 15 to 19 years of age, with the highest rates being in the most rural counties (Mahnomen, 64.7; Cass, 40.1; and Pennington, 39.8 per 1,000). In addition, women in rural areas have higher rates of obesity, cancer, heart disease and diabetes than women in urban areas. In Minnesota, 28% of rural women are obese compared with 21% of urban women. Furthermore, this percentage has increased since 2004, when 23% of rural and 20% of urban women in the state were obese. Mortality or death rates from heart disease and diabetes are significantly lower among individuals living in Minnesota’s urban communities than in its rural areas.

**Root Causes of Health Disparities**

**Poverty**

Nationwide, nonmetro areas have higher rates of poverty than metro areas (Figure). In Minnesota, 27% of people in rural areas live in poverty, which is defined as having an income lower than the federal guideline ($24,250 for a family of four in 2015), as opposed to 12% in metropolitan areas. Reasons for this include a lack of high-paying jobs in rural areas, a population with less education, and a prevalence of part-time or seasonal agricultural jobs. In addition, people in rural areas tend to pay more for goods and services than people in urban areas.

In general, women are more likely than men to be poor, and households headed by single women are more likely to be poor than those headed by men. Lack of financial stability negatively affects access to health services and decreases health status. People who live in poverty have a higher incidence of chronic diseases, including mental illnesses such as depression and anxiety. Additionally, poor women in rural Minnesota have higher rates of tobacco and substance use than their urban counterparts, contributing to poorer overall health.

**Lack of access to health care**

Rural areas have fewer physicians per population than urban areas, making access to care a challenge for individuals living in rural parts of the state. A Minnesota Department of Health summary found isolated rural parts of Minnesota have only one primary care physician for every 3,191 residents, whereas urban areas have one for every 1,098 residents. In addition, data from a Minnesota Office of Rural Health and Primary Care workforce survey show a 48% decline in physicians providing obstetrical care in rural areas between 2003 and 2007.

The future does not bode well, as it is difficult to attract young physicians to work in rural areas. This may be because there are fewer primary care residency positions in rural communities and because positions pay more in urban areas. Adding to these challenges is the fact that the primary care workforce in rural Minnesota is older than that in metropolitan areas. In isolated rural parts of the state, 51% of the physicians are older than 55 years of age; in urban areas only 34% are 55 or older.

Other factors expected to make it more difficult to access care in the future are the aging of the population and the increase in the number of people covered by insurance, both of which increase demand for services. It is estimated that Minnesota will need 1,187 primary care physicians in addition to its current 4,215 by the year 2030.
The shortage of physicians in rural areas affects women in a number of ways. For example, having fewer doctors providing obstetrical care in rural areas results in decreased access to prenatal care, which leads to poor maternal and infant outcomes. It also forces women to travel greater distances for pregnancy care.

**Inadequate health insurance**

Lack of or inadequate health insurance coverage are additional barriers to care faced by women in rural areas.16 Rural women who hold low-paying agricultural jobs or who only have part-time employment are less likely to have employer-sponsored health insurance.17 Those who purchase coverage on their own often have higher copayments, larger deductibles and higher premiums than those who receive coverage through their employer.13 These higher out-of-pocket expenses cause many women to forgo preventive health screenings2 as well as ongoing care for chronic conditions such as diabetes, hypertension, depression and anxiety.1 It has been shown that individuals with insurance are more likely than those without it to establish and maintain a relationship with a primary care provider, which decreases costs and improves health outcomes.17

**Recommendations**

The following may help reduce, if not eliminate, the health disparities between women in rural and urban parts of the state.

**Expand the rural health care workforce**

In order to increase the number of rural primary care physicians, medical and premed students must be exposed to primary care practices in rural communities. Efforts must be made to provide more experiences such as that offered through the Rural Physician Associate Program (RPAP) at the University of Minnesota Medical School, through which third-year medical students spend nine months living and training in rural Minnesota settings.20 A similar program should be created to expose undergraduate premedical students to the benefits of rural medical practice.

Because medical school debt is one reason graduates choose higher-paying nonprimary care specialties, we need more loan-repayment programs for those entering primary care in rural areas.22 In 2015, the Minnesota Legislature voted to increase funding by $5.2 million for loan forgiveness programs in 2016 and 2017 for physicians and other health care providers who serve in rural and underserved urban settings. Lawmakers also allocated $1.5 million for additional residency slots and included funding to better utilize the skills of foreign-trained immigrant physicians in hope of increasing the primary care workforce.21 These are good first steps, but the burden of medical school debt is greater now than ever. We also need to promote real payment reform at the national and state level to bring primary care salaries in line with those for specialty care, which would encourage more medical students to pursue primary care careers.22

In addition, we need to increase efforts to promote job satisfaction among doctors who currently practice rural medicine so that they will be less like to retire early or leave their practices. One way to do that is to decrease paperwork and other administrative burdens that consume their time. Another is to allow physician extenders such as nurse practitioners and physician assistants to do as much as they are allowed to do within the scope of their license so physicians can concentrate on their more challenging cases.

**Improve access to care through telehealth services**

Electronic or virtual medical visits (e-visits) can be used in conjunction with office visits for monitoring chronic conditions such as diabetes and high blood pressure as well as addressing straightforward acute issues such as sinus infections. E-visits also would be extremely effective for contraceptive counseling and reproductive care for younger women who may not have access to such services in their communities. Using telehealth technologies in this way would enable women with complicated pregnancies to remain at home longer and avoid having to travel to a city for late-term pregnancy care. Electronic consultations also could be used to provide specialty care in rural areas where specialists are not as available as they are in urban areas. A number of barriers limit the use of such consultations. For one thing, they are poorly reimbursed by insurance companies. In addition, many rural areas lack broadband Internet service, and hospitals and clinics do not have the technical infrastructure needed to engage in such activities.23 Better payment models for telehealth services and expanded Internet capabilities in rural areas would greatly improve access to care, thereby decreasing disparities.

**Expand health insurance options to women in rural Minnesota**

One of the goals of the Affordable Care Act (ACA) is to reduce the number of uninsured people in the United States. Under the ACA, states could expand access to Medicaid to individuals with incomes less than 138% of the federal poverty level.24 Minnesota was one of the states that expanded access to Medicaid. As a result, the number of people who were uninsured declined by 40.6% during the first year of implementation.25 In addition, individuals and families with incomes between 100% and 400% of the federal poverty level who purchase private coverage through an insurance exchange now receive tax credits. About 75% of rural residents in the state who were once without insurance are now eligible to receive coverage through one of these options.25 Although data on the numbers of rural women who are still uninsured and underinsured are not yet available, we know that not all have coverage. Anecdotally, we now know that many individuals who gained health insurance through the ACA have been unable to pay the high deductibles and copays associated with the lower-cost products, leading to delays in care.
Conclusion
Public health officials, rural physicians and rural community leaders must all work together if we are to improve the health status of women in rural Minnesota. Achieving health equity among rural and urban women is important to improving the health of the state’s population in general and to controlling rising health care costs. Bringing awareness to the problem of health disparities between rural and urban women in the state is the first step toward solving the problem. With the continued hard work on the part of the public health and medical communities, health equity is attainable for women in rural parts of the state. MM

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